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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/637,629 | 08/11/2003 | Ricky Kuan | MR1957-774 | 2088 |
| 4586 | 7590 | 06/13/2006 | EXAMINER | |
| ROSENBERG, KLEIN & LEE 3458 ELLICOTT CENTER DRIVE-SUITE 101 ELLICOTT CITY, MD 21043 | | | BELT, SAMUEL E | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3746 | |

DATE MAILED: 06/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/637,629 | KUAN, RICKY | |
| | Examiner | Art Unit | |
| | Samuel E. Belt | 3746 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 08 August 2003.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-11 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-11 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 08/11/2006 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

| | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harvey (US Patent 5,831,525) in view of Della Fiora et al. (US Patent Application 2002/0105786). Harvey discloses a cooling apparatus installed in the computer case of a computer and adapted to dissipate heat from a heat source in said computer case, the cooling apparatus comprising: a housing (Figure 1, item 100), said housing having a receiving open chamber extending to a front side thereof (not labeled; however, clearly seen in Figure 1); a display panel (Figure 1, item 116) mounted on the front side of said housing, said display panel having an LED display unit (Figure 1, item 150) and a control circuit assembly (column 6, line 23+) comprising a pulse wave reference circuit (Figure 8, item R4); a temperature detection circuit adapted to detect the temperature of a heat source (Figure 8, thermistor); a driving circuit (Figure 8, power switching circuit) coupled to said axial fan and adapted to drive said axial fan; and a control circuit (column 6, line 23+) respectively coupled to said pulse wave reference circuit, said temperature detection circuit, said driving circuit, and said LED display unit; a thin sheet

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air filter (Figure 1, item 670) mounted in an opening in said display panel corresponding to the receiving open chamber of said housing, a packing frame (Figure 1, item 600) fastened to said display panel to hold down said thin sheet air filter.

The Harvey device differs from the claimed invention in that there is no explicit teaching of an axial flow fan being transversely mounted in the receiving open chamber inside of the housing. Della Fiora et al. teach a cooling system having an axial flow fan, which can be mounted within a computer housing (paragraph 0002). It would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to modify the Harvey device by using the axial flow fan as taught by Della Fiora et al., in order to promote higher air flow (paragraph 0008) through the housing, thus providing better cooling for computer components.

Claims 1-4, and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harvey (US Patent 5,831,525) in view of Della Fiora et al. (US Patent Application 2002/0105786) and in further view of Lin (US Patent 6,462,944).

Harvey and Della Fiora et al. set forth a device as described above, which is substantially analogous to the claimed invention. The Harvey and Della Fiora et al. device differs from the claimed invention in that there is no explicit teaching of the air filter having a grille mounted on the opening of the frame. Lin teaches a computer cabinet cooling system having a grille that is used on the front of the computer housing.

It would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to modify the Harvey and Della Fiora et al. device by using

the grille as taught by Lin, in order to better protect the internal components of the computer casing. It is also well known that grills are used for protecting air filtration ports on electronic devices as evidenced by Lin.

Claims 1-5, and 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harvey (US Patent 5,831,525) in view of Della Fiora et al. (US Patent Application 2002/0105786) and in further view of Doiron et al. (US Patent 5,698,866).

Harvey and Della Fiora et al. set forth a device as described above, which is substantially analogous to the claimed invention. The Harvey and Della Fiora et al. device differs from the claimed invention in that there is no explicit teaching of the Light Emitting Display (LED) displaying a temperature level. Doiron et al. teach an electronic light delivery device having a temperature display circuit that is used to indicate a detected temperature level within the electronic device.

It would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to modify the Harvey and Della Fiora et al. device by using the temperature display circuit as taught by Doiron et al., in order to better monitor the internal temperature of the computer cartridge device. It is also well known that LED displays are used for displaying temperatures and/or other parameters of electronic devices for monitoring their status as evidenced by Doiron et al.

Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harvey (US Patent 5,831,525) in view of Della Fiora et al. (US Patent Application 2002/0105786) and in further view of Van Brocklin et al. (US Patent 5,929,581).

Harvey and Della Fiora et al. set forth a device as described above, which is substantially analogous to the claimed invention. The Harvey and Della Fiora et al. device differs from the claimed invention in that there is no explicit teaching of the control circuit comparing a potential output from said temperature detection circuit to a potential output from said pulse wave reference circuit, and then providing a pulse signal to said driving circuit subject to a comparison result, causing said driving circuit to drive said axial flow fan. Van Brocklin et al. teach a proportional integral fan controller for controlling the speed of a cooling fan in a computer.

It would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to modify the Harvey and Della Fiora et al. device by using the control circuit (column 4, line 45+) as taught by Van Brocklin et al., in order to advantageously dissipate the heat output from electrical components within the computer (column 2, line 18+).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel E. Belt whose telephone number is (571) 272-7820. The examiner can normally be reached on M-F, 8 - 4:30EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Thorpe can be reached on (571) 272-4444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SEB


Samuel E. Belt
06/09/2006


TAE JUN KIM
PRIMARY EXAMINER